DLWEIP

Dryland Livestock Wildlife Environment Interface Project

STATUS AND TRENDS OF NATURAL RESOURCES AT THE LIVESTOCK WILDLIFE INTERFACE

POLICY BRIEF 1

Protected and non-protected areas interface in Africa pose various management opportunities and challenges arising from diverse needs the interface represents. These ecosystems are rich in biodiversity, supporting livestock production for pastoral livelihoods, wildlife conservation, tourism, and agricultural activities.

Changes in land use in the interface areas are a response to a mix of factors including land privatisation and other government policies, population growth and migration, external forces as climate change (more frequent and protracted droughts and floods), and changing national and international markets for livestock and rangeland products.

Years of non-sustainable land management practices at the livestock wildlife environment at the interface has led to land degradation and unprecedented loss of biodiversity. Intense natural resources competition between the three industries (livestock, tourism and agriculture), is straining the environment and leading to a wide range of resource conflicts and degradation.

In some areas, the establishment of community conservancies has improved the quality of natural resources management, improved people's livelihoods and enhanced peace and harmony.

In other areas, rural poverty is common and environmental resources are becoming increasingly degraded. The impact of loss of communal land resources such as grazing land and woodlands has compounded resource conflicts, biodiversity loss, and environmental degradation. The linked poverty and land degradation problems are particularly severe in remote, arid, and semi-arid

zones.

Key Questions

1. What good practices can be learned from sustainably managed livestock wildlife interface systems that can be applied elsewhere?
2. Are the current status and trends of wildlife and natural resources utilization in the interface areas sustainable? If they are not, what can be done to revert to positive trends?
3. In what ways or approaches can the local communities' capacities be empowered in decision-making on management of NR practices that improve their livelihoods while conserving the rich biodiversity in these fragile ecosystems?
4. What can governments

A: Trends at Ecosystem Level

1. The largest conversion of land use in East Africa in the past 50 years has been the expansion of agriculture and protected areas at the expense of grazing land. Prior to 1950, arid, semi-arid, and sub-humid areas were predominantly pastoral with scattered settlement and cultivation. From the 1950s to the present there has been significant transformation of grazing land to mixed crop-livestock agriculture and protected areas.
2. Stiff competition of natural resource use exists between livestock resources in mixed production ecosystems and protected areas at the interface. Besides, these areas are rich in biodiversity, wildlife resources, and a range of dryland products that can improve the livelihoods of the local people if harnessed sustainably. Land use zoning around protected areas should be enforced and appropriate development agenda compatible with domestic livestock/wildlife management at interface be introduced.
3. The emergence of community conservancies in Ewaso Ngiro ecosystem is a good practice towards sustainable management of natural resources in these resource rich ecosystems. at the interface. However, the success of such management alternative needs to be closely pegged on improved and fully empowered local communities' capacities in decision-making on management of natural resources practices that improve benefit the local people while conserving the rich biodiversity in these fragile ecosystems.

4. Driving Forces include economic, policy, unclear boundaries and competition of resources, poor infrastructure and conflicts (water-use, wildlife-livestock-people conflicts) and other reasons behind migration, population growth, the availability of land for settlement, and non-farm opportunities.
5. Policies have tended to favour wildlife conservation over livestock and other land use for access to land and technical and financial support. Demarcation of protected areas (NPs and GRs) leave the rest of communal trust land to private or communal holdings with little incentive for sustainable natural resource management. In the past, the communities have often incurred more direct and indirect costs than benefits for having wildlife in their vicinity.
6. Lack of alternative livelihoods drives the degradation of communal land resources leading to diminishing grazing resources, fuelwood and medicinal herbs and eventually loss of livelihoods. Poverty then, becomes more of a driver than an impact.

Indicator of Good Practice at the interface, Kenya

Namunyak Wildlife Conservancy Trust (NWCT) was formed in 1995 initially bringing together 2 group ranches and which later increased to three groups. The Board of Trustees consists of 16 members 11 of which were of formal level of education while 5 were of informal level. Some of the income generating activities include:- Rental houses; Sahara camp run with partnership with a private investor; Micro enterprises ; Rock climbing; Camel riding and bird shooting. The ranch had a income of Ksh.11m from donors and Ksh.3 million from business activities. Any profit from business activities is shared 60% for community while 40% is used to support the Trust operations.

The mission and objective of the Trust is conservation of natural resources for benefit of the members in accordance to empower the community economically.

Indicators of good practices in Namunyak Conservancy NWCT has improved the livelihoods of the members in:

- ❑ Employment 43 permanent staff and over 200 casual workers employed at one time or another throughout the year. Revenue Generation from Sarara Camp and Ololokwe Cultural Safaris in 2002 was US$ 12,105, allocated according to community priority needs as follows:
  - educational bursaries - $3,896;
  - compensation for wildlife damages -$1,000;
  - Community projects $5,910;
  - endowment fund $1,299.
- ❑ Improved security for the people, property and wildlife - the trust is supporting a local security system where issues of livestock raids, wildlife poaching and banditry incidences are reported and stopped at early stage. Consequently the incidences of cattle rustling, highway banditry and wildlife poaching has dramatically reduced. Wildlife numbers has increased due to increased security.
- ❑ Support to community projects: water projects, self help projects, educational bursaries among others.
- ❑ Biodiversity conservation - area has witnessed increasing elephant population, self introduction of wild dogs, the use of corridors.
- ❑ Number of partnerships arrangement has increased - Lewa Conservancy, KWS, Acacia Trails (in charge of Sarara Camp).
- ❑ Sustainability issues - Institutional (governance system); financial sustainability, and social aspects are all considered and working well towards self reliance in meeting core funds.

Non-sustainable practices at the livestock wildlife interface in the entire ecosystem include:

a. **Overstocking and overgrazing** giving way to a severely degraded landscape and very poor range condition in places. Loss of vegetation cover leaves the area exposed to risks of soil loss, soil degradation and invasion by alien species.

b. **Charcoal burning and fuelwood collection** is impacting woodland resources leading to land degradation. As a result Acacia tortilis and other indigenous woody species are threatened.

c. **Loss of communal pasture**, woodlands and other natural areas for grazing or collecting a host of range resources due to bush encroachment and invasive species. Bush encroachment impedes wildlife sighting by tourists besides increasing incidences of predation.

d. **Over abstraction of water resources** for irrigation by commercial farms and giving rise to water-use conflicts. For instance, over the 3 decades water flow at Archer's Post in Ewaso Ngiro basin has declined from 4.5 cubic meters per second in 1970's to 0.9 cubic meters per second in 1990's as a result of catchment destruction and changes in land use in upstream and down stream.

e. **Poaching and killing of wildlife** for bush meat or sport which is a non sustainable utilization of wildlife resources.

f. **Non-involvement of women and youth** in decision making pertaining natural resources and conservation efforts while they are the active NR managers.

B: Trends at Project Level

Drivers of good practices. The transition from extensive towards intensive, sustainable, and well managed ecosystem has occurred in several places among them the DLWEIP pilot sites (Kalama, Namunyak and Naibunga). The formation of conservancies by the communities in group ranches is being driven by:

The success stories in the neighbourhood (Lewa Down, Il Ngwesi, LWF) and fervor to learn from each other. Private ranches and initiatives have been successful in initiating good conservation practices, integrating wildlife and livestock resources and tapping benefits from tourism and related activities.

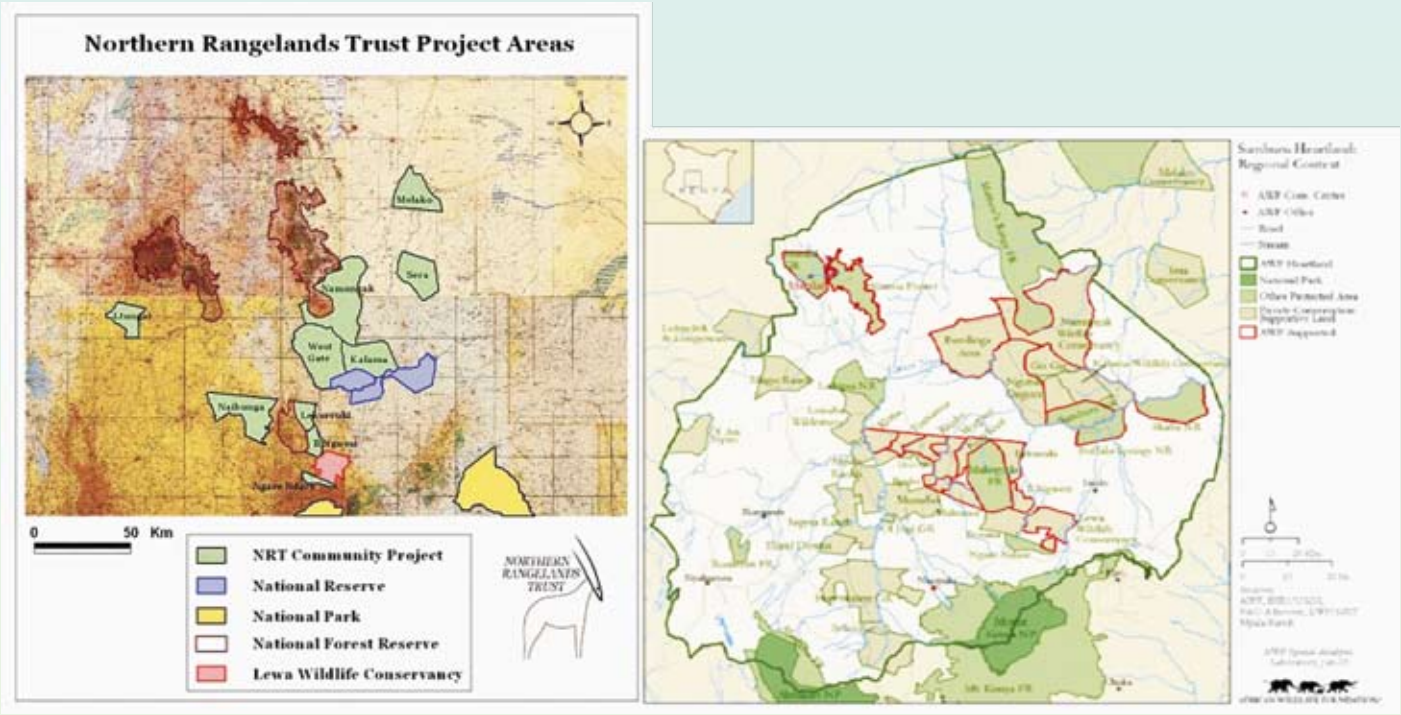

Fig 1. Left Map of Samburu and Laikipia Districts of Kenya showing status of community based wildlife conservation programmes (adapted from Northern Rangeland Trust 2003 by Oguge et. al., 2006). Right - A map of African Wildlife Foundation's Samburu Heartland showing locations of Naibunga (a), Namunyak and Kalama (b). (Source Oguge et. al., 2006).

a. Need to combat insecurity among the communities resulting from banditry incidences, cattle rustling and poaching.

b. Need for alternative source of livelihood as livestock tend to be stochastic in tandem with the climatic factors (frequent and protracted droughts and floods, diseases and quarantines, poor marketing infrastructure.

c. Availability and access to donor support in cash or in kind is encouraging the communities to form conservancy trusts. This support would be scarce outside an institutional framework that conservancies are giving.

d. Need for security of land tenure, access rights and benefit sharing among the conservancies' constituent group ranches under the Group Land Representative Act 1968.

e. Synergy in partnerships and collaboration with an array of other institutions (LWF, NRT, KWS, AWF, ACC, GoK through various Ministries, among other partners).

Pressures being exerted on land resources due to natural and /or human activities that may not be compatible with sustainable use of natural resources - hence becomes a driving force in land degradation. The conservancies are acting as good avenues for building the capacity of communities to deal with land degradation problem.

Improved management of natural resources at the interface will present opportunities for marketing of biodiversity and other rangeland products thus help the community to address their livelihood problems.

Figure 2. (a) Panoramic and (b)satellite imagery of the Ewaso Basin showing extensive poor range areas. Namunyak conservancy showing differences in grass biomass in (c) overgrazed and (d) core conservation area around Sarara Eco-Lodge. (Source Oguge et. al., 2006

DLWEIP aim is to mainstream biodiversity and livestock resources at the interface between mixed production ecosystems and protected areas in Africa through the promotion and support to sustainable land management systems for livestock and wildlife at the interface to improve livelihoods, biodiversity conservation and reduce land degradation.

This is being achieved through development and testing of good practices at the interface at two pilot sites in representative agro-ecological systems, in Kenya and Burkina Faso.

Major institutional partners include UNEP/GEF, African Union Bureau of Animal Resources (AU-IBAR), World Conservation Union (IUCN), African Wildlife Foundation (AWF), the African Conservation Centre (ACC), and both Governments of Kenya and Burkina Faso.

CONTACTS:

AU-IBAR
P.O. Box 307896 00100
Nairobi, Kenya
Email:
ibar.office@au-ibar.org /
nouala.simplice@au-ibar.org
Tel:+254-20-3674000
Fax: +254-20-3674341

UNEP/DGEF
Dr. Mohamed F. Sessay
P.O. Box 30552 00100
Nairobi, Kenya
Email:
mohamed.sessay@unep.org
Tel: +255-20-7624294
Fax: +254-20-7624041

The size of the areas set aside for conservation by the communities is an indicator of their willingness to embrace active management of wildlife alongside other livelihood mechanisms. This achievement needs to be applauded with not only words but also much support.

C. Policy issues in sustainable resource management at the interface include:

a. Environmental considerations for wildlife protection and conservation should not overshadow the livestock based livelihoods. Livestock development policies should not be ignored.

b. Invest in infrastructural development of livestock marketing facilities.

c. Land use zoning around protected areas should be enforced and appropriate development agenda compatible with domestic livestock/wildlife management at interface be introduced.

d. Community based Eco-tourism initiatives be supported and community capacities to manage such enterprises be enhanced.

e. Governmental policy and programmes have frequently changed affecting land management. These include access to credit, price incentives, subsidies for veterinary drugs, the strength of extension services, decentralisation and centralisation of land management authority, and land tenure arrangements.

f. Integrated community-level land use planning to optimise water, grazing and woodlands resources.

D: Future Trends

Dryland livestock wildlife interface areas will witness more areas being reserved for conservation initiatives as the communities indicate a favour for mixed livestock and wildlife production systems. These community-based and managed initiatives will be important avenues to combat poverty, natural resource degradation, insecurity and resolve resource conflicts and conserve biodiversity in the ecosystem. Key drivers are international/cross border security, and growth in tourism industry Thus, a lot of patience is called for as communities establish the conservancies, learn to work in synergy with other pro-wildlife initiatives and partners, embrace sustainable NRM at their locality and make sound decisions regarding leadership, governance and management of the conservancies.

Summary

a. Land degradation is ensuing in areas where no conservation efforts are going on.

b. The conservancies on the other hand present avenues to empower the communities for sustainable land use, and encourage good practices that will improve their livelihoods, conserve biodiversity and reduce land degradation.

c. The poverty/ land degradation spiral is not irreversible. As sustainable management of wildlife resources at the interface becomes more profitable, communities will invest more in resource conservation.

d. Supportive policies and programs may have a large impact during this transition period, when economic returns to investment in the natural resources may be met in the short to medium term.

e. Promotional of sustainable alternative income generating initiatives such as bee-keeping are essential to a productive and sustainable ecosystem.

f. The current and especially future situation is most critical in semi-arid areaswhere the marginality and vulnerability of the human and environmental systems overlap.

References

Oguge, N., Mireri C. and Onjala J. 2006. Assessment of Status and Trends of Natural Resource Use in Ewaso NyiroBasin, Kenya. World Conservation Union (IUCN) Report for DLWEIP.

Olima, W. and Nzianga H. 2006. Assessment of Land Use policies in Kenya. World Conservation Union (IUCN) Report for DLWEIP.

Mwaura F. 2006. Assessment of Natural Resource Utilization in Samburu and Laikipia with special emphasis on Namunyak, Kalama and Naibunga Conservancies. African Conservation Center (ACC) Report for DLWEIP.

Njoka, J.T., Mwangi E. and Wanjiku J. 2006. Identification and promotion of sustainable management and rehabilitation of woodlands. World Conservation Union (IUCN) Report for DLWEIP.

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